## **Technological Edge**

UNGLOK'S chief executive Andrew Tjioe has always been a big supporter of initiatives that can help reduce reliance on manpower. The company was in fact the first in Singapore to invest in three Artificial Intelligence Cooking Machines (AIC), which are pre-programmed to cook dishes. The data points are impressive – one AIC is able to fry up to 100 kg of rice in half an hour, versus 30 kg if cooked manually. Additionally, it reduces up to 30 per cent of energy consumption and 50 per cent of kitchen waste.

While not all companies have so thoroughly embraced technology – whether because of price pains or structural issues – there has been a marked shift in businesses' receptiveness.

In a bid to increase the productivity of the food services and retail sectors, the Food Services Productivity Plan and Retail Productivity Plan were launched in 2011. The Singapore Productivity Centre was also set up in 2013 to assist food and retail enterprises to plug their productivity gaps. Since then, over 620 retailers and 680 food services companies have been supported for various productivity and service upgrading projects.

Within the food and beverage (F&B) sector, industry initiatives to improve back-end operations include centralised dishwashing, manpower scheduling systems and e-procurement portals. Retailers have adopted technology to improve inventory management, financial transactions and staff scheduling, enabling retailers to capture real-time information about inventory movement and transactions for quicker and more informed decision making.

"Digital service solutions are an important technology enabler within the F&B and retail sectors in coping with manpower challenges, boosting service excellence and serving customers more quickly, accurately and efficiently. In particular, the automation of ordering and payment processes through such solutions reduces the need for F&B and retail staff to perform time-consuming and repetitive tasks, enabling them to focus on delivering better customer service," says Kee Ai Nah, group director for industry and enterprise group at Spring Singapore.

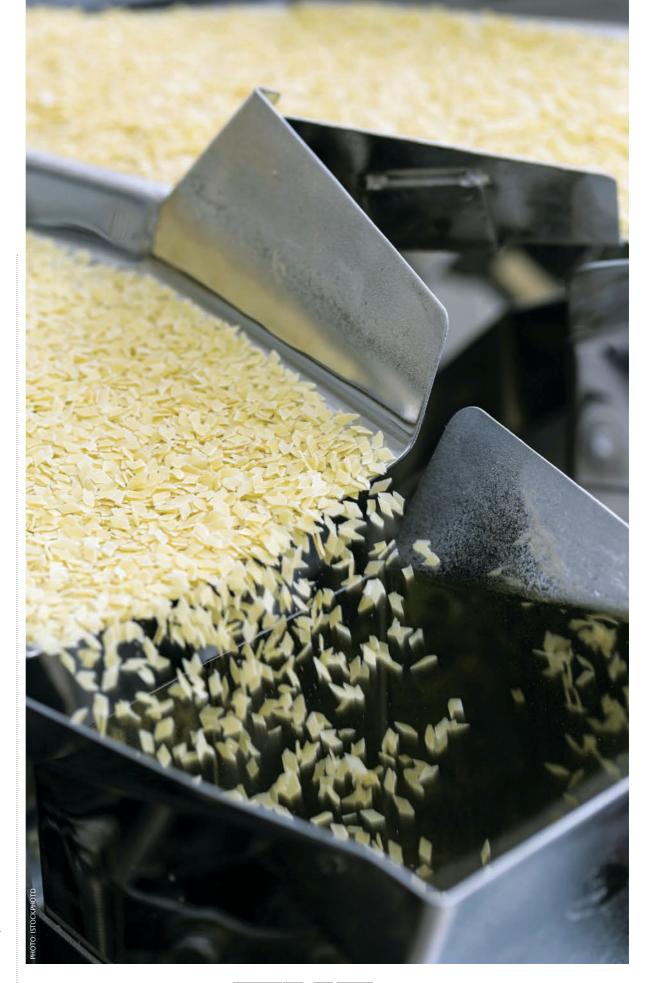
Since 2011, more than 600 F&B outlets have implemented some form of digital service solution. About 330 F&B outlets have been supported by Spring in implementing such solutions in the first five months of this year alone. Adoption has gained significant traction.

Businesses in the retail space too have been leveraging technology to increase their productivity. A total of 50 outlets from Ikea, NTUC FairPrice, Sheng Siong and Dairy Farm International have implemented self-checkout (SCO) terminals, according to Spring. By end 2015, the SCO model will be rolled out at about 30-40 per cent of the three supermarket chains' outlets. Spring is also supporting a few standalone heartland retailers to adopt the SCO model.

Even as Spring reaches out to companies that have yet to implement such models, they are already encouraging early adopters to innovate. "Currently, most of the SCO models accept only payment by card (ie by Nets and credit card). We are working with these retailers to install SCO terminals with cash management functions, to give consumers the option to pay be either cash or card," says Ms Kee.

To further improve operations, a multi-agency committee, led by the Ministry of Finance and Monetary Authority of Singapore, has been set up to facilitate the use of more efficient digital and mobile payment modes. While there are currently different payment terminals sitting on the cashier counter that process various payment modes, the plan is to have a unified solution.

"In light of the current tight labour market, F&B companies face difficulties employing more service staff to help them meet the increasing demand. As such, they will have to turn to automation, digital service and robotics to help improve their productivity and customer service. The use of drones (as part of robotics) is an innovative solution if it suits the business value propositions. Drones could enable companies to replace manual tasks like order-taking and payment collection to increase the efficiency of the whole process."



## THE MECHANICS OF FOOD

Adopting technology will help F&B and retail companies cope with manpower challenges, boost service excellence and better serve their customers